

Quad-Channel Digital Isolator (3/1 Channel Directionality); Package: SOIC - Wide; No of Pins: 16; Temperature Range: Industrial

Manufacturers	Analog Devices, Inc
Package/Case	SOIC-16
Product Type	Interface ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for ADUM1401CRWZ-RL or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ADuM1401 is a quad-channel digital isolator with 3/1 channel directionality based on Analog Devices, Inc., iCoupler® technology. Combining high speed CMOS and monolithic air core transformer technology, these isolation components provide outstanding performance characteristics superior to alternatives, such as optocoupler devices.

By avoiding the use of LEDs and photodiodes, iCoupler devices remove the design difficulties commonly associated with opto-couplers. The typical optocoupler concerns regarding uncertain current transfer ratios, nonlinear transfer functions, and temperature and lifetime effects are eliminated with the simple iCoupler digital interfaces and stable performance characteristics.

The need for external drivers and other discrete components is eliminated with these iCoupler products. Furthermore, iCoupler devices consume one-tenth to one-sixth of the power of optocouplers at comparable signal data rates.

The ADuM1400/ADuM1401/ADuM1402 isolators provide four independent isolation channels in a variety of channel configurations and data rates (see the Ordering Guide in the data sheet). All models operate with the supply voltage on either side ranging from 2.7 V to 5.5 V, providing compatibility with lower voltage systems as well as enabling a voltage translation functionality across the isolation barrier. In addition, the ADuM1400/ADuM1401/ADuM1402 provide low pulse width distortion (<2 ns for CRW grade) and tight channel-to-channel matching (<2 ns for CRW grade). Unlike other optocoupler alternatives, the ADuM1400/ADuM1401/ADuM1402 isolators have a patented refresh feature that ensures dc correctness in the absence of input logic transitions and when power is not applied to one of the supplies.

Features

Qualified for automotive applications

Low power operation

Bidirectional communication

3 V/5 V level translation

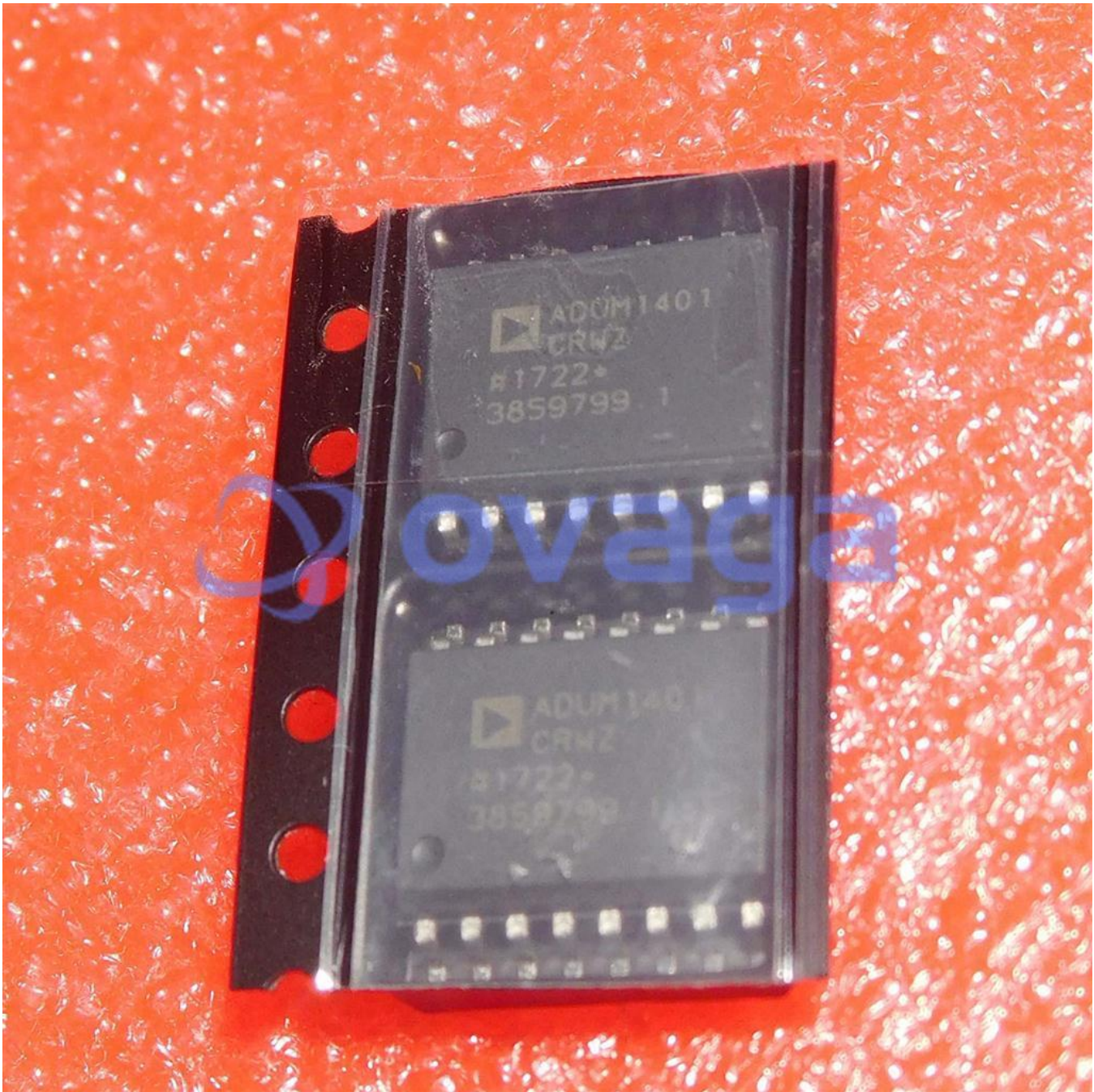
High temperature operation: 125°C

High data rate: dc to 90 Mbps (NRZ)

Precise timing characteristics

High common-mode transient immunity: >25 kV/μs

See data sheet for additional features



Related Products



[ADV7181CBSTZ](#)

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LQFP-64



[AD8170AR](#)

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SOP8



[AD724JR](#)

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SOIC-16



[ADV7393BCPZ](#)

Analog Devices, Inc
LFCSP-VQ-40



[ADV7391WBCPZ](#)

Analog Devices, Inc
LFSCP-3



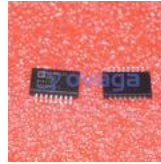
[ADV7390BCPZ](#)

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